

**REMARKS**

By this Amendment, Applicants amend claims 1, 4, 8, 11, 15-22, and 24. Claims 1-28 remain pending in this application.

In the Office Action of January 24, 2006,<sup>1</sup> claims 1-14 and 25-28 were rejected under 35 U.S.C. § 102(b) as anticipated by the document entitled “Inside AutoCAD® 2000 Limited Edition,” by Burchard et al. (“*AutoCAD 2000*”); and claims 15-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over *AutoCAD 2000* in view of U.S. Patent No. 5,966,310 (“*Maeda*”). Applicants address these rejections below.

**Section 102(b) rejection of claims 1-14 and 25-28**

Applicants traverse the § 102(b) rejection of claims 1-14 and 25-28 because the disclosure of *AutoCAD 2000* fails to anticipate the claims. In order to properly anticipate Applicants’ claimed invention under 35 U.S.C. § 102, a single prior art reference must disclose each and every element of the claim at issue, either expressly or under principles of inherency. Further, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” See M.P.E.P. § 2131. Also, “[t]he elements must be arranged as required by the claim.” *Id.*

With regard to independent claim 1, *AutoCAD 2000* does not teach at least “obtaining a schematic generated from a feature-based parametric modeling tool,” as claimed (emphasis added). *AutoCAD 2000* merely describes operation and uses of the AutoCAD® 2000 software. Even if the *AutoCAD 2000* reference were construed as teaching a “schematic,” the reference is silent with respect to obtaining a schematic generated from a feature-based parametric modeling tool (e.g., Pro-Engineer), as claimed. Indeed, an AutoCAD® 2000 drawing would not be

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether or not any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

generated from a feature-based parametric modeling tool. For example, in AutoCAD® 2000, drawings would presumably be generated by specifying geometry, such as lines and surfaces, rather than by features.

*AutoCAD 2000* further fails to teach at least “automatically colorizing the at least one feature based on the color scheme to generate a colorized schematic,” as recited in claim 1. The Examiner noted the disclosure in *AutoCAD 2000* regarding controlling object properties and managing layers. Office Action at pp. 2-3 (citing *AutoCAD 2000* at Chapter 4, Figs. 4.3, 4.4). While the reference describes automatically changing the color of all objects on a layer by changing a value in a “Layer Properties Manager” (Chapter 4: Controlling Object Properties), *AutoCAD 2000* does not teach “automatically colorizing the at least one feature [associated with a schematic generated from a feature-based parametric modeling tool] based on the color scheme to generate a colorized schematic.” Indeed, to the extent the cited portion of the reference teaches colorizing a schematic, it merely describes the ability of a user to change colors of layers in an AutoCAD drawing. This functionality is not the same as obtaining a schematic from a feature-based parametric modeling tool (e.g., Pro-Engineer) and then automatically colorizing at least one feature based on a color scheme to generate a colorized schematic, as recited in claim 1.

Because *AutoCAD 2000* does not teach each and every feature of claim 1, as a matter of law, it cannot anticipate this claim. As a result, the § 102(b) rejection of claim 1 based on *AutoCAD 2000* should be withdrawn. Claims 2-7 and 25-28 depend upon claim 1 and are distinguishable from *AutoCAD 2000* for at least reasons similar to those presented above in connection with claim 1. Applicants therefore request withdrawal of the § 102(b) rejection and the timely allowance of claims 1-7 and 25-28.

Independent claim 8 recites a combination including “obtaining a schematic generated from a feature-based parametric modeling tool” and “automatically colorizing the at least one feature based on the color scheme to generate a colorized schematic.” Although claim 8 is of different scope than claim 1, the rejection of claim 8 under 35 U.S.C. § 102(e) should be withdrawn for at least reasons similar to those presented above in connection with claim 1. Claims 9-14 depend upon claim 8 and are likewise distinguishable from *AutoCAD 2000*. Applicants therefore request withdrawal of the § 102(b) rejection and the timely allowance of claims 8-14.

Furthermore, with respect to dependent claims 4 and 11, *AutoCAD 2000* fails to teach at least “applying the stored association to the revised schematic such that portions of the revised schematic unchanged with respect to the original schematic are automatically colorized in the same manner as in the stored colorized schematic” and “determining revised portions and the unchanged portions of the revised schematic based on the application of the stored association to the revised schematic,” as claimed respectively. Although *AutoCAD 2000* discloses controlling object and layer properties, such as color, the reference does not teach the “applying” and “determining” features noted above. For these additional reasons, claims 4 and 11 are distinguishable from *AutoCAD 2000* and the § 102(b) rejection of claims 4 and 11 should be withdrawn.

#### **Section 103(a) rejection of claims 15-24**

Applicants traverse the rejection of claims 15-24 because a case for *prima facie* obviousness has not been established. As M.P.E.P. § 2142 states, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. First, the applied references, taken alone or in combination, must teach or suggest each and every element

recited in the claims. *See* M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the reference(s) in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. § 2143 (8th ed. 2001).

With regard to independent claim 15, the Examiner conceded that *AutoCAD 2000* fails to disclose “the system components.” Office Action at 11. In an attempt to establish *prima facie* obviousness, the Examiner relied upon *Maeda* to cure these deficiencies in *AutoCAD 2000*. The Examiner has not established *prima facie* obviousness for at least the following reasons.

Claim 15 recites a combination of elements including “a colorization module configured to obtain a schematic generated from a feature-based parametric modeling module and colorize the schematic to generate a colorized schematic.” *AutoCAD 2000* fails to teach such a module. While *AutoCAD 2000* discloses functionality for controlling object properties, the reference is silent with respect to a “colorization module,” as recited in claim 15.

*Maeda* does not cure *Kim*’s deficiencies. *Maeda* is directed to a “personal design system” for producing equipment in accordance with user designs. Abstract; col. 1, lines 10-15. *Maeda* does not teach or suggest “a colorization module configured to obtain a schematic generated from a feature-based parametric modeling module and colorize the schematic to generate a colorized schematic,” as claimed.

In rejecting claim 15, the Examiner noted *Maeda*’s “graphics processing means.” Office Action at 11 (citing *Maeda*, col. 2, lines 44-47, 63-65). According to *Maeda*, the “graphics processing means” produces “image display data representing the designed appearance of the

equipment” and outputs “the image display data to the displaying section.” Col. 2, lines 44-48. *Maeda*’s “graphics processing means” does not teach or suggest the “colorization module” recited in claim 15. Merely producing and outputting image display data does not teach or suggest colorizing a schematic generated from a feature-based parametric modeling module to generate a colorized schematic.

*AutoCAD 2000* and *Maeda* therefore fail, alone and in combination, to teach or suggest each and every element recited in claim 15. Accordingly, a *prima facie* case of obviousness has not been established by the supposed combination of these references.

Moreover, *prima facie* obviousness has not been established at least because the requisite motivation for combining *AutoCAD 2000* and *Maeda* is lacking. According to the Federal Circuit, “virtually all [inventions] are combinations of old elements.” *See e.g., In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998) (citations omitted). An examiner may find every element of a claimed invention in the prior art but mere identification is not sufficient to negate patentability. *Id.* The court explained that “the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.” *Id.*

In addition, determinations of obviousness must be supported by evidence on the record. *See In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001), 59 USPQ2d 1693, 1696-98 (finding that the factual determinations central to the issue of patentability, including conclusions of obviousness by the Board, must be supported by “substantial evidence”). The desire to combine or modify references must be proved with “substantial evidence” that is a result of a “thorough and searching” factual inquiry. *See In re Lee*, 277 F.3d 1338, 1343-1344 (Fed. Cir. 2002),

61 USPQ2d 1430, 1433 (quoting *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52). Additionally, the Federal Circuit has clearly stated that the evidence of a motivation or suggestion to modify a reference must be “clear and particular.” *In re Dembicziak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

In this case, the Examiner has not shown by “clear and particular” evidence that a skilled artisan considering AutoCAD and *Maeda*, and not having the benefit of Applicants’ disclosure, would have modified or combined the references in the manner alleged or in a manner resulting in the invention defined by claim 15. The Examiner alleged that a skilled artisan would have “integrated” the teachings of the applied references “in order to make the schematic more easily manipulated and viewable by a generic user.” Office Action at 11. This allegation by the Examiner is not properly supported and does not show that a skilled artisan would have combined the references. Indeed, the Examiner provided no “clear and particular” evidence from the applied references, the nature of the problem to be solved, or the knowledge of persons of ordinary skill in the art regarding a “generic user” easily manipulating and viewing a schematic. The Examiner also failed to provide any explanation regarding how the alleged combination would “make the schematic more easily manipulated and viewable.”

As M.P.E.P. § 2143.01 makes clear, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination” (citations omitted). In this case, neither *AutoCAD 2000* nor *Maeda* “suggests the desirability” of the alleged combination or of a combination resulting in the invention defined by Applicants’ claims.

Applicants submit that the Examiner has impermissibly used teachings of the present application in hindsight to piece together isolated disclosures of the applied references.

Examiners, however, may not pick and choose among isolated disclosures in references to defeat patentability of a claimed invention. Such picking and choosing amounts to improper hindsight reconstruction, and is prohibited. *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). For at least the foregoing additional reasons, *prima facie* obviousness has not been established with respect to claim 15.

Because *prima facie* obviousness has not been established, the § 103(a) rejection of claim 15 should be withdrawn. The § 103(a) rejection of dependent claims 16-21 should be withdrawn for at least reasons similar to those set forth above in connection with claim 15. Applicants thus request withdrawal of the § 103(a) rejection and the timely allowance of claims 15-21.

Independent claim 22 recites, *inter alia*, a “colorization module” configured to “obtain a schematic generated from a feature-based parametric modeling tool” and “automatically colorize the features based on the color scheme to generate a colorized schematic.” Although claim 22 is of different scope than claim 1, *AutoCAD 2000* fails to teach or suggest the above-noted features of claim 22 for at least reasons similar to those presented above in connection with claim 1.

*Maeda* does not cure *AutoCAD 2000*’s deficiencies. Although *Maeda* discloses “graphics processing means,” the reference does not teach or suggest at least a “colorization module” configured to “obtain a schematic generated from a feature-based parametric modeling tool” and “automatically colorize the features based on the color scheme to generate a colorized schematic,” as recited in claim 22. *AutoCAD 2000* and *Maeda* therefore fail, alone and in combination, to teach or suggest each and every element recited in claim 22. Accordingly, a *prima facie* case of obviousness has not been established by the supposed combination of these references.

Furthermore, *prima facie* obviousness has not been established with respect to claim 22 at least because the requisite motivation for combining the applied references is lacking. The Examiner again alleged that a skilled artisan would have “integrate[d]” the teachings of the references “in order to make the schematic more easily manipulated and viewable by a generic user.” Office Action at 16. As explained above in connection with claim 15, this allegation by the Examiner is not properly supported and does not show that a skilled artisan would have combined the references as alleged. The Examiner again appears to have improperly used Applicants’ claims in hindsight to reconstruct the prior art.

Because the Examiner failed to establish *prima facie* obviousness with respect to claim 22, the rejection of that claim under 35 U.S.C. § 103(a) should be withdrawn. The § 103(a) rejection of dependent claims 23 and 24 should be withdrawn as well, for at least reasons similar to those set forth above in connection with claim 22. Applicants thus request withdrawal of the § 103(a) rejection and the timely allowance of claims 22-24.

Additionally, with respect to dependent claims 21 and 24, *AutoCAD 2000* and *Maeda* fail, alone and in combination, to teach or suggest at least a “colorization module” configured to “apply the stored association to the revised schematic such that portions of the revised schematic unchanged with respect to the original schematic are automatically colorized in the same manner as in the stored colorized schematic” and to “determine revised portions and the unchanged portions of the revised schematic based on the application of the stored association to the revised schematic,” as claimed respectively. Although *AutoCAD 2000* discloses controlling object and layer properties, such as color, the reference does not teach or suggest a “colorization module,” as recited in claims 21 and 24. Further, while *Maeda* describes graphics processing means, the references does not teach or suggest a colorization module configured to “apply the stored



association to the revised schematic such that portions of the revised schematic unchanged with respect to the original schematic are automatically colorized in the same manner as in the stored colorized schematic” and to “determine revised portions and the unchanged portions of the revised schematic based on the application of the stored association to the revised schematic,” as claimed. For these additional reasons, the § 103(a) rejection of claims 21 and 24 should be withdrawn.

**Conclusion**

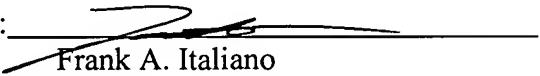
Applicants request the Examiner’s reconsideration of the application in view of the foregoing, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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